ABSTRACT

Frame synchronization of a received OFDM signal (such as that used in a hybrid FM DAB system) is provided by filtering out significant outer frequency portions of the digital channels, and then using

5   cyclic extension and correlation of the cyclically extended bits (or samples). The received OFDM signal is passed through a bandpass filter to remove outer digital subcarriers (i.e., those farthest from a center frequency) from a received OFDM signal before correlating to locate the OFDM frame boundaries. By filtering out digital subcarriers within each of

10   the digital channels, particularly those closest to adjacent channels and thus most likely to be interfered with by an adjacent first channel OFDM (or FM) signal, correlation between cyclically extended bit (or sample) patterns and thus frame synchronization of OFDM signals can be improved significantly.

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